ABSTRACT

A system for adjusting the representation of a device's color gamut in color appearance space, comprising performing forward mapping of sample colors from a device-dependent space to a device-independent color appearance space to obtain forward-mapped device-independent values, obtaining mismatch values for perceived device-neutrals, each mismatch value being a difference between a forward mapped value for the device-neutral and a neutral axis of the color appearance space, and adjusting each forward-mapped device-independent value by utilizing the obtained mismatch value for each corresponding lightness level of device-neutrals in order to obtain an adjusted forward mapping. The adjusting of each forward-mapped device-independent value may be a full adjustment of each value, or a partial adjustment that is performed in either a linear or non-linear manner and that may be based on chroma, lightness, or both. The adjusted forward-mapping may be inverted with both the adjusted forward-mapping and the inverted adjusted forward-mapping being inserted into a color management module.

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